



**To:** Class of 2016 MMS students

**From:** Luca Rigotti

**Re:** Pre-assignment for Decision 516F: Quantitative Business Analysis

**Date:** July 2, 2016

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Dear Class of 2017:

Welcome to the Quantitative Business Analysis course. Regardless of the setting, management decisions are necessarily made under conditions of uncertainty. Moreover, the increasing availability of data has led to a greater role for statistics in business decision making. The Quantitative Business Analysis course introduces a framework for thinking about problems involving uncertainty and develops tools for interpreting data. We will consider applications in a variety of areas, including finance, marketing, human resources, operations and accounting. The goal of the course is to sharpen students' quantitative and analytical skills and to provide a foundation in probability and statistics for subsequent courses and for a management career.

This pre-assignment package contains the course syllabus and schedule, the pre-reading assignment, a reading assignment relevant for Class 2, and the problem sets for the entire course. Other material (including data for the pre-reading assignment) will be posted online, as will be done throughout the course.

The course syllabus and schedule describe the course's goals and mechanics. They also detail the topics covered in each class and the corresponding assignments. The course assumes your familiarity with basic tools to describe data visually and numerically. You can review these tools, with examples, using Module III of the math review CD. Alternatively, you can read Chapters 1, 2 and 3 of *Business Statistics* by Groebner, Shannon and Fry. Finally, you can attempt to solve the exercises in Problem Set 0.

It is important that you do the reading and try the exercises before the class for which they are assigned. (In particular, Problem Sets 1 and 2 will be covered in the first lecture.) Advance preparation is crucial and extremely helpful since we will be moving through the material quickly. Although this is a lot of reading for a short period, we do not expect you to fully digest everything. Similarly, we do not expect you to solve all the exercises in the problem sets before the class in which they are discussed. However, you should be prepared to discuss these exercises in class. These exercises, like the quizzes and cases, are an important part of the learning process in the course. Advance preparation that involves some familiarity with the exercises and topics to be covered will greatly help you when they are discussed in class and illustrated with examples and exercises, enabling you to gain a better understanding of the concepts and how they can be applied.

There are **two assignments** before the first class meeting.

1. You are asked to complete an anonymous and brief on-line survey by 11:59pm on **July 12**. No statistics knowledge is required and completing it should not take more than a couple of minutes of your time. You can get to the survey by following the link on the course site.
2. The pre-reading assignment focuses on summary statistics and normal distributions. By successfully completing the pre-reading assignment, you will ensure that computational technicalities will not be an obstacle in your conceptual understanding of the material that we will be covering during the first couple of weeks. We will not cover these topics in our first class meeting.

I look forward to seeing you soon!

Luca Rigotti